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Pallavi Shah

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EXAMINER

HA, LEYNNA A

ART UNIT

PAPER NUMBER

2135

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/551,523

Applicant(s)

SHAH ET AL.

Examiner

LEYNNA T. HA

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 49-54, 56-75, 77-88 and 90-99 is/are pending in the application.
- 4a) Of the above claim(s) 1-48, 55, 76 and 89 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 49-54, 56-75, 77-88 and 90-99 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. Claims 49--54, 56-75, 77-88, and 90-99 are pending.

Claims 1-48, 55, 76, and 89 have been cancelled.

2. This is a Final rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 49, 51, 55, 57, 73, 74, 76, 80-83, 85 and 97-99 are rejected under 35 U.S.C. 102(b) as being anticipated by Mihara, et al. (US 5,481,757).**

As per claim 49:

Mihara discloses a method for controlling access to a continuous stream of a content transmitted over a plurality of communication paths, the method comprising:

transmitting from a server [COL. 1, line 24-27 and COL.4, lines 45-46] a plurality of notifications [COL.3, lines 10-13 and COL.6, lines 37-41; the claimed notification is not disclosed nor defined in the specification but the terms broadcast or television followed by the terms signals and messages are repeatedly utilized. Thus, for purposes of applying art, the notifications

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broadly interprets as television signals or broadcasting signals as disclosed by Mihara. The television or broadcast signals corresponds to frequency information, channel information, and content stream.] for determining a sequence of transmission [COL.2, lines 5-29 and COL.8, lines 35-40; sequence of transmission can broadly be interpreted as the frequency or channel for transmitting the stream of content] of said continuous stream [COL.5, lines 6-7] of said content via a plurality of communication paths; [COL.6, lines 42 and 58-67; a channel is the path or a link through which information passes between two devices]

obtaining by a client said plurality of notifications; **[col.4, lines 60-67 and col.7, lines 37-43]**

transmitting from said server said continuous stream of said content via said plurality of communication paths according to said sequence of transmission; and **[COL.7, lines 50-57]**

obtaining by said client said continuous stream of said content by automatically switching communication paths in accordance with said sequence of transmission of said content based on said plurality of obtained notifications. **[COL.5, lines 15-20 and COL.9, lines 26-29 and 62-67]**

As per claim 51: See col.10, lines 8-10 and col.12, lines 36-42; discussing a sequence of transmission of said content determines which communication paths contain which parts of said continuous stream of said content at a given time.

As per claim 55: See COL.5, lines 6-7; discussing a continuous stream of said content comprises an individual television program.

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As per claim 57: See COL.5, lines 14-26 [Mihara teaches the program (content) can be continuously viewed in a normal state only when a predetermined authentication signal is received, thus Mihara inherently teaches preventing non-authorized viewer from viewing the continuous stream of content if the predetermined authentication signal is not received within a predetermined time period (col.5, lines 6-8)]; discussing a switching of said communication paths prevents a non-authorized viewer from viewing said continuous stream of said content.

As per claim 73:

Mihara discloses a method for controlling access to a content transmitted over a plurality of communication paths, the method comprising:

transmitting to a subset of a plurality of clients in a secure manner mapping information for a content transmitted over said plurality of communication paths to said plurality of clients; **[COL.6, lines 55-67; a channel is inherently known as a path or a link through which information passes between to devices]**

switching automatically by said subset of a plurality of clients to a communication path of said plurality of communication paths that is transmitting said content; **[COL.5, lines 14-17 and COL.11, lines 9-16]**

signaling said subset of said plurality of clients with modified mapping information on a repeated basis during a course of a viewed presentation; and **[col.14, lines 18-49 and COL.16, lines 1-5; when signaling the**

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modified mapping information on a repeated basis is inherently known for updating purposes so that the content can be routed properly.]

switching automatically by said subset of a plurality of clients to a modified communication path of said plurality of communication paths based on said modified mapping information. **[col.13, lines 40-67]**

As per claim 74: See COL.5, lines 6-47 and col.13, lines 40-67; discussing switching automatically by said subset of a plurality of clients to communication path and to said modified communication path are performed without interfering with a continuity of a presentation of said content on said subset of said plurality of clients.

As per claim 76: See COL.9, lines 42-67; discusses mapping information is transferred via a dedicated communication path.

As per claim 80: See COL.11, lines 9-16 and col.14, lines 18-49; discussing dynamically selecting a next content transmission communication path.

As per claim 81: See COL.5, lines 44-47 and col.14, lines 18-49; discussing a modified mapping information comprises an indication to allow for switching of said next transmission communication path at a given time.

As per claim 82: See COL.14, lines 18-30; discussing indication comprises a frame number of said content.

As per claim 83:

Mihara discloses a system for controlling access to a content comprising:
a plurality of communication paths; a server; **[COL.6, lines 37-41]**

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a plurality of notifications **[COL.3, lines 10-13; the claimed notification is not disclosed nor defined in the specification but the terms broadcast or television followed by the terms signals and messages are repeatedly utilized. Thus, for purposes of applying art, the notifications broadly interprets as television signals or broadcasting signals as disclosed by Mihara. The television or broadcast signals corresponds to frequency information, channel information, and content stream.]** for determining a sequence of transmission for determining a sequence of transmission of a content **[COL.2, lines 5-29 and COL.8, lines 35-40; sequence of transmission can broadly be interpreted as the frequency or channel for transmitting the stream of content]** having a plurality of parts via said plurality of communication paths; and **[COL.6, lines 42 and 58-67; a channel is the path or a link through which information passes between to devices]**

a client coupled to said server via said plurality of communication paths;
[COL.6, lines 30-65]

wherein said plurality of notifications are transmitted from said server to said client; **[COL. 1, line 24-27 and COL.4, lines 45-46]**

wherein said plurality of parts of said content are transmitted from said server **[COL.8, lines 1-6]** over said plurality of communication paths according to said sequence of transmission; and **[COL.7, lines 50-57]**

wherein said client obtains said plurality of parts of said content **[COL.4, lines 60-67 and COL.7, lines 37-43]** by automatically switching communication paths **[COL.5, lines 15-20 and COL.11, lines 9-16 and 31-33]** in accordance

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with said sequence of transmission of said content based on said plurality of obtained notifications. **[COL.9, lines 26-29 and 62-67]**

As per claim 85: See col.10, lines 8-10 and col.12, lines 36-42; discussing a sequence of transmission determines which communication paths contain which parts of said content at a given time.

As per claim 97: See col.5, lines 6-22 and col.7, lines 49-57; discussing each of said plurality of communications paths is a frequency, and wherein said automatically switching communications paths includes changing a frequency over which said content is transmitted **(col.8, lines 35-45 and col.9, lines 26-29).**

As per claim 98: See col.5, lines 6-22 and col.7, lines 49-57; discussing each of said plurality of communications paths is a frequency, and wherein said switching automatically by said subset to a communication path and said switching automatically by said subset of said plurality of clients to a modified communication path includes switching to a different frequency over which said content is transmitted **(col.8, lines 35-45 and col.9, lines 26-29).**

As per claim 99: See col.7, lines 16-20 and col.8, lines 35-39; discussing each of said plurality of communications paths is a frequency, and wherein said switching communications paths includes switching a frequency over which said content is transmitted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 50, 56, 75, 77-79, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mihara, et al. (US 5,481,757), and in further view of Beyer, et al. (US 5,235,619).

As per claim 50:

Mihara discloses the broadcasting station transmitting broadcasting signals to the terminal devices wherein the signals correspond to the frequency corresponding to the channels (col.4, lines 13-20) and modified mapping information (col.13, lines 40-67). However, Mihara did not go into further details the signaling at irregular intervals.

Beyer teaches a cable TV distribution plant for distributing cable television notifications or signals to a subscriber where the headend sends signals to the subscribers in a downstream direction wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34), and further discusses a frequency diverse system to support reliable communications and to avoid the interference includes several complimentary techniques such as frequency diversity, multiple

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(simultaneous communication channels and time randomized redundant message transmissions. (col.18, line 68 – col.19, line 5).

Therefore, it would have been obvious to combine Beyer who teaches transmitting signals at irregular randomized intervals with the teaching of Mihara because this technique supports reliable communications and avoids interference.

As per claim 56:

Mihara viewing said continuous stream of said content and automatically switching of said communication paths (COL.5, lines 14-17). Mihara did not implicitly discuss the viewer unaware when the channels are switching automatically.

Beyer teaches a cable TV distribution plant for distributing cable television signals to a subscriber wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34). Further, Beyer discloses successively transmitting data (col.18, lines 4-5) by using the techniques of frequency diversity, multiple simultaneous communication channels (col.19, lines 1-5) and automatic switching by instantly switching the operation of one set of frequencies to another in order to avoid error and interference (col.19, lines 58-60).

It is obvious the combination of Mihara and Beyer offers the viewer to not be aware when the channels are automatically switched because Mihara/Beyer teaches automatically switching to different channels and the program continuously viewed in a normal state to avoid error and interference.

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As per claim 75:

Mihara viewing said continuous stream of said content and automatically switching of said communication paths (COL.5, lines 14-17). Mihara did not implicitly discuss the viewer unaware when the channels are switching automatically.

Beyer teaches a cable TV distribution plant for distributing cable television signals to a subscriber wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34). Further, Beyer discloses successively transmitting data (col.18, lines 4-5) by using the techniques of frequency diversity, multiple simultaneous communication channels (col.19, lines 1-5) and automatic switching by instantly switching the operation of one set of frequencies to another in order to avoid error and interference (col.19, lines 58-60).

It is obvious the combination of Mihara and Beyer offers the viewer to not be aware when the channels are automatically switched because Mihara/Beyer teaches automatically switching to different channels and the program continuously viewed in a normal state to avoid error and interference.

As per claim 77:

Mihara discloses the broadcasting station transmitting broadcasting signals to the terminal devices wherein the signals correspond to the frequency corresponding to the channels (col.4, lines 13-20) and modified mapping information (col.13, lines 40-67). When signaling the modified mapping information on a repeated basis is inherently known for updating purposes so

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that the content can be routed properly. However, Mihara did not go into further details the signaling at irregular intervals.

Beyer teaches a cable TV distribution plant for distributing cable television signals to a subscriber where the headend sends signals to the subscribers in a downstream direction wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34), and further discusses a frequency diverse system to support reliable communications and to avoid the interference includes several complimentary techniques such as frequency diversity, multiple (simultaneous communication channels and time randomized redundant message transmissions. (col.18, line 68 – col.19, line 5).

Therefore, it would have been obvious to combine Beyer who teaches transmitting signals at irregular randomized intervals with the teaching of Mihara because this technique supports reliable communications and avoids interference.

As per claim 78: As rejected on the same basis as in claim 77.

As per claim 79: As rejected on the same basis as in claim 77.

As per claim 84:

Mihara discloses the broadcasting station transmitting broadcasting signals to the terminal devices wherein the signals correspond to the frequency corresponding to the channels (col.4, lines 13-20) and modified mapping information (col.13, lines 40-67). However, Mihara did not go into further details the signaling at irregular intervals.

Beyer teaches a cable TV distribution plant for distributing cable television signals to a subscriber where the headend sends signals to the subscribers in a downstream direction wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34), and further discusses a frequency diverse system to support reliable communications and to avoid the interference includes several complimentary techniques such as frequency diversity, multiple (simultaneous communication channels and time randomized redundant message transmissions. (col.18, line 68 – col.19, line 5).

Therefore, it would have been obvious to combine Beyer who teaches transmitting signals at irregular randomized intervals with the teaching of Mihara because this technique supports reliable communications and avoids interference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 52-54 and 86-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mihara, et al. (US 5,481,757), and in further view of Hendricks, et al. (US 6,828,993).

As per claim 52:

Mihara discloses the broadcasting station transmitting broadcasting signals to the terminal devices wherein the signals corresponds to the frequency corresponding to the channels and also transmits authentication signal (col.4, lines 13-20 and col.5, lines 7-8). However, Mihara did not go into further details of encrypting the signals.

Hendricks discloses a television program delivery system consists of the set top terminals (client) receiving signals from the cable headend (server) where the headend demultiplexes and recombines the signals. In addition, the headends allocates different portions of the signal to different frequency ranges, which accommodates and offers different subscribers different programs (col.8, lines 7-17) and performs any necessary signal decryption and/or encryption (col.8, lines 29-30).

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It would have been obvious for a person of ordinary skills in the art to modify Mihara by encrypting the signals as taught in Hendricks, because encryption prevents unauthorized access to the information contained in the signal during transmission from the server to the client.

As per claim 53:

Mihara discloses the broadcasting station transmitting broadcasting signals to the terminal devices wherein the signals corresponds to the frequency corresponding to the channels and also transmits authentication signal (col.4, lines 13-20 and col.5, lines 7-8). However, Mihara did not go into further details of decrypting the encrypted signals.

Hendricks discloses a television program delivery system consists of the set top terminals (client) receiving signals from the cable headend (server) where the headend demultiplexes and recombines the signals. In addition, the headends allocates different portions of the signal to different frequency ranges, which accommodates and offers different subscribers different programs (col.8, lines 7-17) and performs any necessary signal decryption and/or encryption (col.9, lines 27-29).

It would have been obvious to modify Mihara by encrypting the signals as taught in Hendricks, because encryption prevents unauthorized access to the information contained in the signal during transmission from the server to the client. Since the Mihara-Hendricks combination obviously discloses encrypting the signals, it would have been obvious to be able to decrypt the signal in order to obtain the information corresponding to the signal.

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As per claim 54: See Mihara on COL.6, lines 39-42; Mihara does not teach encrypting the signals wherein recites the headend sends out and modulates the television signals corresponding to the channels.

As per claim 86:

Mihara discloses the broadcasting station transmitting broadcasting signals to the terminal devices wherein the signals corresponds to the frequency corresponding to the channels and also transmits authentication signal (col.4, lines 13-20 and col.5, lines 7-8). However, Mihara did not go into further details of decrypting the encrypted signals.

Hendricks discloses a television program delivery system consists of the set top terminals (client) receiving signals from the cable headend (server) where the headend demultiplexes and recombines the signals. In addition, the headends allocates different portions of the signal to different frequency ranges, which accommodates and offers different subscribers different programs (col.8, lines 7-17) and performs any necessary signal decryption and/or encryption (col.9, lines 27-29).

It would have been obvious to modify Mihara by encrypting the signals as taught in Hendricks, because encryption prevents unauthorized access to the information contained in the signal during transmission from the server to the client. Since the Mihara-Hendricks combination obviously discloses encrypting the signals, it would have been obvious to be able to decrypt the signal in order to obtain the information corresponding to the signal.

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As per claim 87: See Mihara on COL.6, lines 39-42; Mihara does not teach encrypting the signals wherein recites the headend sends out and modulates the television signals corresponding to the channels.

As per claim 88: See Mihara on COL.5, lines 6-7; discussing content comprises a continuous stream of an individual television program.

As per claim 89: See col.1, lines 23-30 [CATV can be used for internet connections to provide digital data across from subscriber to subscriber, therefore a web page is necessary for internet usage]; discussing content comprises a web page.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 58-63, 65 and 90-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamura, et al. (US 6,396,814), and further in view of Dureau (US 6,721,958).

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As per claim 58:

A method for controlling access to a content having a plurality of parts transmitted over a plurality of communication paths, the method comprising:

transmitting an notification of a communication path on which a part of said content [COL.6, lines 10-12 and COL.27, line 64 – col.28, line 5; Iwamura discusses transmitting part of data or information that are segmented to reduce traffic volume. Thus, a segment or part of data is transmitted at a given time and not all at once.] will be transmitted at a given time, wherein said (encrypted) notification comprises an indication of said given time; [COL.28, lines 52-56; Iwamura teaches multiplex transmission which is a technique for transmitting signals simultaneously of each signal on a channel where multiplexing can separate the signals by time, space or frequency. Thus, transmitting a part of content at a given time is multiplex transmission]

transmitting said part of said content on said communication path at said given time; [COL.33, line 63 – COL.34, line 8]

transmitting another notification of another communication path on which another part of said content will be transmitted at another given time, wherein said another encrypted notification comprises an indication of said another given time; and [COL.34, lines 20-26]

transmitting said another part of said content on said another communication path at said another given time. [COL.28, lines 57-63; Iwamura teaches multiplex transmission by frequency division multiplexing or time

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division multiplexing which transmitting on different communication paths of segments of content at different times.]

However, Iwamura did not discuss the notification is encrypted.

Dureau teaches implementing a variety of measures to maintain the security and quality of transmitted programs where portions of the television content can be nontrusted and trusted (col.2, lines 28-31). Dureau discloses notifications identify one or more pieces of trusted television content (col.4, lines 65-66) where the notification may be delivered via a channel that is not secure which needs to be encrypted to verify its authenticity (col.6, lines 46-48).

Therefore, it would have been obvious for a person of ordinary skills in the art at the time of the invention to combine the teachings of encrypted notifications of Dureau with the teachings of transmitting notifications on plurality of communication paths of Iwamura because to verify and proof its authenticity.

As per claim 59: See Iwamura on COL.6, lines 10-11; discussing a transmitting said another encrypted notification and said transmitting said another part of said content are repeated until all parts of said content have been transmitted.

As per claim 60: See Dureau on COL.20-21, lines; discussing a content comprises a continuous stream of an individual television program.

As per claim 61: See Iwamura on COL.2, lines 16-17; discussing pluralities of notifications are transmitted at irregular intervals.

As per claim 62: See Dureau on COL.7, lines 65-67; discusses viewing said plurality of parts of said content via an authorized client, wherein each of said

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plurality of notifications is decrypted at said authorized client prior to transmission of said corresponding part of said content.

As per claim 63: See Dureau on COL.2, lines 50-51 and COL.6, lines 42-44; discussing plurality of parts of said content are not encrypted prior to transmission on said plurality of communication paths.

As per claim 65: See Iwamura on COL.34, lines 39-50 and COL.35, lines 23-30; discussing a transmitting said part of said content on said communication path and said transmitting said another part of said content on said another communication path prevent a non-authorized viewer from viewing said plurality of parts of said content.

As per claim 90:

Iwamura teaches a system for controlling access to a content comprising:

a content having a plurality of parts; [COL.6, lines 10-12 and COL.27, line 64 – col.28, line 5; Iwamura discusses transmitting part of data or information that are segmented to reduce traffic volume. Thus, a segment or part of data is transmitted at a given time and not all at once.]

a plurality of communication paths; [COL.34, lines 39-50 and COL.35, lines 23-30]

a server; and

a plurality of notifications, each of said plurality of notifications notifying a client of a communication path on which a corresponding part of said content will be transmitted at a given time [COL.28, lines 52-56; Iwamura teaches multiplex transmission which is a technique for transmitting signals

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simultaneously of each signal on a channel where multiplexing can separate the signals by time, space or frequency. Thus, transmitting a part of content at a given time is multiplex transmission], and each of said plurality of (encrypted) notifications comprises an indication of said respective given time; [COL.33, line 63 – COL.34, line 8]

wherein said server repeatedly transmits notification of said plurality of notifications until all parts of said content have been transmitted. **[COL.28, lines 57-63; Iwamura teaches multiplex transmission by frequency division multiplexing or time division multiplexing which transmitting on different communication paths of segments of content at different times.]**

However, Iwamura did not discuss the notification is encrypted.

Dureau teaches implementing a variety of measures to maintain the security and quality of transmitted programs where portions of the television content can be nontrusted and trusted (col.2, lines 28-31). Dureau discloses notifications identify one or more pieces of trusted television content (col.4, lines 65-66) where the notification may be delivered via a channel that is not secure which needs to be encrypted to verify its authenticity (col.6, lines 46-48).

Therefore, it would have been obvious for a person of ordinary skills in the art at the time of the invention to combine the teachings of encrypted notifications of Dureau with the teachings of transmitting notifications on plurality of communication paths of Iwamura because to verify and proof its authenticity.

As per claim 91: See Dureau on COL.20-21, lines discussing a content comprises a continuous stream of an individual television program.

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As per claim 92: See Iwamura on COL.2, lines 16-17; discussing a plurality of notifications are transmitted from said server at irregular intervals.

As per claim 93: See Dureau on COL.7, lines 65-67; discussing a client for obtaining said plurality of parts of said content and wherein each of said plurality of notifications is decrypted prior to said client obtaining said corresponding part of said content.

As per claim 94: See Dureau on COL.2, lines 50-51 and COL.6, lines 42-44; discussing a plurality of parts of said content are not encrypted prior to transmission from said server.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 66-69, 72, and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamura, et al. (US 6,396,814), and further in view of Beyer (US 5,235,619).

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As per claim 66:

A method for controlling access to a content transmitted over a plurality of communication paths, the method comprising:

transmitting a notification of a communication path on which a part of said content **[COL.6, lines 10-12 and COL.27, line 64 – col.28, line 5; Iwamura discusses transmitting part of data or information that are segmented to reduce traffic volume. Thus, a segment or part of data is transmitted at a given time and not all at once.]** will be transmitted at a given time from a server to a client, wherein said notification comprises an indication of said given time; **[COL.28, lines 52-56; Iwamura teaches multiplex transmission which is a technique for transmitting signals simultaneously of each signal on a channel where multiplexing can separate the signals by time, space or frequency. Thus, transmitting a part of content at a given time is multiplex transmission]**

transmitting said part of said content on said communication path at said given time to said client; **[COL.33, line 63 – COL.34, line 8]**

viewing said part of said content on said communication path via said client; **[COL.19, lines 38-40]**

transmitting another notification of another communication path on which another part of said content will be transmitted at another given time from said server to said client; **[COL.34, lines 20-26]**

transmitting said another part of said content on said another communication path at said another given time to said client, wherein said

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another notification comprises an indication of said another given time; and
[COL.28, lines 57-63; lwamura teaches multiplex transmission by frequency division multiplexing or time division multiplexing which transmitting on different communication paths of segments of content at different times.]

viewing said another part of said content on said communication path via said client. **[COL.18, lines 44-45 and COL.21, lines 5-7]**

lwamura teaches a system for controlling access to a content comprising a content having a plurality of parts **[COL.6, lines 10-12]**, a plurality of communication paths **[COL.34, lines 39-50 and COL.35, lines 23-30]** wherein each of said plurality of notifications notifying a client of a communication path on which a corresponding part of said content will be transmitted at a given time **[COL.5, lines 42-44]**.

lwamura did not discuss switching automatically by said client of said communication path.

Beyer teaches a cable TV distribution plant for distributing cable television signals to a subscriber wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34). Further, Beyer discloses successively transmitting data (col.18, lines 4-5) by using the techniques of frequency diversity, multiple simultaneous communication channels (col.19, lines 1-5) and automatic switching by instantly switching the operation of one set of frequencies to another in order to avoid error and interference (col.19, lines 58-60).

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It would have been obvious for a person of ordinary skills in the art to combine the teaching of automatically switching of Beyer with the teachings of transmitting notifications on plurality of communication paths of Iwamura because this offers the viewer not be aware when the channels are automatically switched because Iwamura /Beyer teaches automatically switching to different channels and the program continuously viewed in a normal state to avoid error and interference.

As per claim 67: See Beyer on COL.19, lines 58-60; discussing a transmitting said another notification, said automatic switching by said client of said another communication path, said transmitting said another part of said content, and said viewing said another part of said content are all repeated until all parts of said content have been transmitted.

As per claim 68: See Beyer on COL.13, lines 30-34; discussing a content comprises a continuous stream of an individual television program.

As per claim 69: See Iwamura on COL.2, lines 16-17; discussing pluralities of notifications are transmitted from said server at irregular intervals.

As per claim 72: See Iwamura on COL.34, lines 39-50 and COL.35, lines 23-30 and Beyer on COL.19, lines 58-60; discussing a transmitting said part of said content of said communication path, said automatically switching to said communication path, said transmitting said another part of said content on said another communication path, and said automatically switching to said another communication path prevent a non-authorized viewer from viewing said plurality of parts of said content.

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As per claim 96:

A system for controlling access to a content comprising:

an individual television program having a plurality of parts; **[COL.13, lines 64-67]**

a plurality of communication paths; a selected client; and **[COL.34, lines 39-50 and COL.35, lines 23-30]**

a server coupled to said client via said plurality of communication paths **[COL.5, lines 53-55 and COL.30, lines 55-59]**, said server transmitting a notification to said client of a communication path of said plurality of communication paths on which a part of said program **[COL.6, lines 10-12 and COL.27, line 64 – col.28, line 5; Iwamura discusses transmitting part of data or information that are segmented to reduce traffic volume. Thus, a segment or part of data is transmitted at a given time and not all at once.]** will be transmitted at a given time **[COL.28, lines 52-56; Iwamura teaches multiplex transmission which is a technique for transmitting signals simultaneously of each signal on a channel where multiplexing can separate the signals by time, space or frequency. Thus, transmitting a part of content at a given time is multiplex transmission]** and transmitting another notification to said client of another communication path of said plurality of communication paths on which another part of said program will be transmitted at another given time **[COL.33, line 63 – COL.34, line 8]**, wherein said notification comprises an indication of said given time, and wherein said another encrypted

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notification comprises an indication of said another given time; [COL.34, lines 20-26]

wherein said client switches to said communication path at said given time and switches to said another communication path at said another given time; **[COL.28, lines 57-63; lwamura teaches multiplex transmission by frequency division multiplexing or time division multiplexing which transmitting on different communication paths of segments of content at different times.]**

wherein said plurality of notifications are transmitted from said server to said client at irregular intervals; and **[COL.2, lines 16-17]**

Iwamura did not discuss that switching to the communication path automatically.

Beyer teaches a cable TV distribution plant for distributing cable television signals to a subscriber wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34). Further, Beyer discloses successively transmitting data (col.18, lines 4-5) by using the techniques of frequency diversity, multiple simultaneous communication channels (col.19, lines 1-5) and automatic switching by instantly switching the operation of one set of frequencies to another in order to avoid error and interference (col.19, lines 58-60).

It would have been obvious for a person of ordinary skills in the art to combine the teaching of automatically switching of Beyer with the teachings of transmitting notifications on plurality of communication paths of lwamura because this offers the viewer not be aware when the channels are automatically switched

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because Iwamura /Beyer teaches automatically switching to different channels and the program continuously viewed in a normal state to avoid error and interference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 64, 70-71, and 95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamura, et al. (US 6,396,814), view of Beyer (US 5,235,619), and further in view of Dureau (US 6,721,958).

As per claim 64:

Iwamura teaches a system for controlling access to a content comprising a content having a plurality of parts where Iwamura discusses transmitting part of data or information that are segmented to reduce traffic volume [COL.6, lines 10-12 and COL.27, line 64 – col.28, line 5]. Thus, a segment or part of data is transmitted at a given time and not all at once. Iwamura discloses a plurality of communication paths [COL.34, lines 39-50 and COL.35, lines 23-30] wherein

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each of said plurality of notifications notifying a client of a communication path on which a corresponding part of said content will be transmitted at a given time **[COL.5, lines 42-44]**. Iwamura did not implicitly discuss the viewer unaware when the channels are switching automatically.

Beyer teaches a cable TV distribution plant for distributing cable television signals to a subscriber wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34). Further, Beyer discloses successively transmitting data (col.18, lines 4-5) by using the techniques of frequency diversity, multiple simultaneous communication channels (col.19, lines 1-5) and automatic switching by instantly switching the operation of one set of frequencies to another in order to avoid error and interference (col.19, lines 58-60).

It would have been obvious for a person of ordinary skills in the art to combine the teaching of automatically switching of Beyer with the teachings of transmitting notifications on plurality of communication paths of Iwamura because this offers the viewer not be aware when the channels are automatically switched because Iwamura /Beyer teaches automatically switching to different channels and the program continuously viewed in a normal state to avoid error and interference.

The combination of Iwamura and Beyer did not discuss the notification is encrypted.

Dureau teaches implementing a variety of measures to maintain the security and quality of transmitted programs where portions of the television

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content can be nontrusted and trusted (col.2, lines 28-31). Dureau discloses notifications identify one or more pieces of trusted television content (col.4, lines 65-66) where the notification may be delivered via a channel that is not secure which needs to be encrypted to verify its authenticity (col.6, lines 46-48).

Therefore, it would have been obvious for a person of ordinary skills in the art at the time of the invention to combine the teachings of encrypted notifications of Dureau with the teachings of transmitting notifications on plurality of communication paths and automatically switching the communication path of Iwamura and Beyer combination because encryption verifies and proves its authenticity.

As per claim 70: See Dureau on COL.6, lines 46-48; discussing pluralities of notifications are each encrypted prior to transmission from said server.

As per claim 71: See Dureau on COL.2, lines 50-51 and COL.6, lines 42-44; discussing a plurality of parts of said content are not encrypted prior to transmission from said server.

As per claim 95:

Iwamura teaches a system for controlling access to a content comprising a content having a plurality of parts [COL.6, lines 10-12], a plurality of communication paths where Iwamura discusses transmitting part of data or information that are segmented to reduce traffic volume [COL.6, lines 10-12 and COL.27, line 64 – col.28, line 5]. Thus, a segment or part of data is transmitted at a given time and not all at once. Iwamura discloses a each of said plurality of notifications notifying a client of a communication path on which a corresponding

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part of said content will be transmitted at a given time **[COL.5, lines 42-44]**.

Iwamura did not discuss the viewer unaware when the channels are switching automatically.

Beyer teaches a cable TV distribution plant for distributing cable television signals to a subscriber wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34). Further, Beyer discloses successively transmitting data (col.18, lines 4-5) by using the techniques of frequency diversity, multiple simultaneous communication channels (col.19, lines 1-5) and automatic switching by instantly switching the operation of one set of frequencies to another in order to avoid error and interference (col.19, lines 58-60).

It would have been obvious for a person of ordinary skills in the art to combine the teaching of automatically switching of Beyer with the teachings of transmitting notifications on plurality of communication paths of Iwamura because this offers the viewer not be aware when the channels are automatically switched because Iwamura /Beyer teaches automatically switching to different channels and the program continuously viewed in a normal state to avoid error and interference.

The combination of Iwamura and Beyer did not discuss the notification is encrypted.

Dureau teaches implementing a variety of measures to maintain the security and quality of transmitted programs where portions of the television content can be nontrusted and trusted (col.2, lines 28-31). Dureau discloses

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notifications identify one or more pieces of trusted television content (col.4, lines 65-66) where the notification may be delivered via a channel that is not secure which needs to be encrypted to verify its authenticity (col.6, lines 46-48).

Therefore, it would have been obvious for a person of ordinary skills in the art at the time of the invention to combine the teachings of encrypted notifications of Dureau with the teachings of transmitting notifications on plurality of communication paths and automatically switching the communication path of Iwamura and Beyer combination because encryption verifies and proves its authenticity.

Response to Arguments

9. Applicant's arguments filed April 18, 2006 have been fully considered but they are not persuasive.

As per claim 49: Mihara discloses broadcast signals which should be understood as more than one or plural signals. Therefore, reads on the claimed plurality of notifications. Mihara teaches the claimed obtaining by a client said plurality of notifications [col.4, lines 60-67 and col.7, lines 37-43] and transmitting from a server [COL. 1, line 24-27 and COL.4, lines 45-46] a plurality of notifications [COL.3, lines 10-13 and COL.6, lines 37-41]. The television or broadcast signals corresponds to frequency information, channel information,

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and content stream where the signals are for determining a sequence of transmission. The sequence of transmission can broadly be interpreted as the frequency or channel for transmitting the stream of content [COL.2, lines 5-29 and COL.8, lines 35-40]. Mihara discloses transmitting from the broadcasting station (server) the continuous stream of content [col.5, lines 3-8] via the plurality of communications path according to the sequence of transmission [col.7, lines 10-24]. Thus, the client obtains the continuous stream of content once the broadcasting station transmits it to the client's terminal device and that the viewer can view genres of each of the programs provided by the broadcasting station [col.5, lines 32-44]. Mihara discloses the claimed automatically switching communication paths as automatically setting recognition numbers assigned to CATV terminal devices comprises the broadcasting station transmits frequency division multiplexing broadcasting signals corresponding to a plurality of channels [col.4, lines 10-30] and such frequencies are converted corresponding to the channels into the frequencies corresponding to the (BS) channels that is assigned to the terminal devices [col.8, lines 28-34]. Therefore, the converting or frequency is the claimed sequence of transmission based on the obtained signals broadcasting [col.7, lines 11-44] and thus automatically assigns the recognition numbers to switch to the corresponding channels [col.5, lines 14-22]. Mihara discloses the broadcasting station transmits broadcasting signal that includes frequency division multiplexing broadcasting signals corresponding to a plurality of channels, a plurality of terminal devices respectively assigned different particular frequencies for transmitting channel request signals for requesting

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channels desired out of the plurality of channels [col.4, lines 13-18] and the signals corresponding to the channels are sent to the terminal devices [col.7, lines 39-44] does not imply applicant's argument that the content is transmitted or received over a single channel. However, does suggest that Mihara discloses transmitting a continuous stream of content via a plurality of communication paths according to a sequence of transmission.

As for claims 58-65, 70-72, and 90-96: Iwamura discusses transmitting part of data or information that are segmented to reduce traffic volume. Thus, a segment or part of data is transmitted at a given time and not all at once [COL.6, lines 10-12 and COL.27, line 64 – col.28, line 5]. Iwamura teaches multiplex transmission by frequency division multiplexing and time division multiplexing [COL.28, lines 57-63]. For a better understanding of the terminologies, frequency division multiplexing (FDM) and time division multiplexing, please refer to the Microsoft Computer Dictionary. The frequency division multiplexing is defined as a means of loading multiple transmission signals onto separate bands of a single communications channel so that all signals can be carried simultaneously where the it is divided into narrower bands such that each of which can carry a different transmission signal (i.e. different frequency into subchannels). This explains the Iwamura suggesting the claimed transmission on one communication path and another communication path and another communication path. Iwamura teaches multiplex transmission which is a technique for transmitting signals simultaneously of each signal on a channel where multiplexing can separate the signals by time, space or frequency.

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Further, the time division multiplexing known as a form of multiplexing in which transmission time is broken into segments, each carries one element of one signal. Iwamura discloses the signal can be transmitted in multiplex form reads on the notification reads on the claimed notification comprises an indication of a given time [COL.34, lines 7-8]. Thus with Iwamura suggesting the multiplexing transmission by frequency division multiplexing (FDM) or time division multiplexing reads on the claimed transmitting a notification of a communication path on which a part of content, will be transmitted at a given time and transmitting another notification of another path on which another part of the content is transmitted at another given time and another path at another given time [COL.28, lines 52-63 and COL.34, lines 1-27]. Beyer, et al. is brought forth to teach the obviousness of switching automatically of the communication path and Dueau is brought forth to teach the obviousness of encrypted notifications.

Conclusion

10. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory

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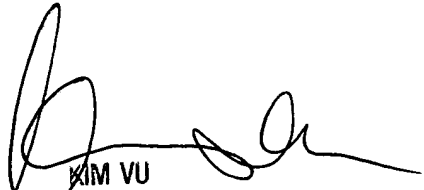
action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEYNNA T. HA whose telephone number is (571) 272-3851. The examiner can normally be reached on Monday - Thursday (7:00 - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LHa



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